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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/707,036	11/06/2000	Jukka Vehmas	U 013044-9	9238

7590

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EXAMINER

COLAIANNI, MICHAEL

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 02/20/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/707,036

Applicant(s)

Vehmas et al.

Examiner

Michael Colaianni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 21, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above, claim(s) 8-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4,8 6) ☐ Other:

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****APPLICANT INCORRECTLY NUMBERED CLAIMS 1-8. THERE ARE ACTUALLY ONLY SEVEN (7) CLAIMS IN GROUP I (THERE WAS NO ORIGINAL CLAIM 4). ACCORDINGLY THOSE SEVEN CLAIMS WILL NOW BE EXAMINED. ORIGINAL CLAIMS 5-8 HAVE BEEN RENUMBERED AS CLAIMS 4-7. THE CLAIMS REFERRED TO IN THE ACTION WILL BE THE CORRECTLY RENUMBERED CLAIMS.****

Election/Restriction

1. Applicant's election of Group I, claims 1-7 in Paper No. 12 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 8-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 12.

Information Disclosure Statement

3. The information disclosure statement filed February 12, 2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed.

The lined-through Finnish patents FI 962158 and FI 962162 have not been considered.

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Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 refers to “blowing hot air jets” which is of confusing antecedent basis with the blown air of claim 1. It is not clear if applicant is claiming additional air jets in claim 2, or if claim 2's air jets are the same as in claim 1.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by McMaster 4620864.

McMaster teaches heating glass from above and below while conveying the glass on a roller conveyer by sucking air from inside the furnace and compressing it to a pressure greater

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than 0.1 bar relative to the pressure in the tempering furnace and then direction the compressed air perpendicular to the glass surface (col. 10, lines 30-64; Figure 3; the "gas jet pumps" necessarily must compress the ambient furnace atmosphere to a pressure slightly greater than the ambient furnace atmosphere because that is the inherent purpose of blower equipment. If no compression occurred then there would be no furnace air movement.)

McMaster also teaches heating the air by compressing air from within the furnace to heat the lower portion of the glass sheet (Fig. 3; col. 10, lines 30-64).

McMaster also teaches the temperature being over 600°C (col. 1, lines 43; the temperature range given is from 593-676°C).

McMaster also teaches heating by means of electric resistors (col. 11, lines 5-10).

8. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Thiessen 5647882.

Thiessen teaches heating glass from above and below while conveying the glass on a roller conveyor by sucking air from inside the furnace and compressing it to a pressure greater than 0.1 bar relative to the pressure in the tempering furnace and then direction the compressed air perpendicular to the glass surface (col. 1, lines 6-15; Figure 1; the blowers necessarily must compress the ambient furnace atmosphere to a pressure slightly greater than the ambient furnace atmosphere because that is the inherent purpose of blower equipment. If no compression occurred then there would be no furnace air movement.)

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Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over McMaster 4620864 in view of LeTemps et al. 4773926.

McMaster teaches applicant's claimed invention. See the §102(b) rejection for McMaster's teachings. However, McMaster does not teach the rotational speed of the compressors, the velocity of the gas leaving the nozzles or the diameter of the holes in the nozzles.

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However, LeTemps et al. teach that it is well known to expel gas toward both surfaces of glass at supersonic speeds to temper the glass in a rapid fashion (col. 5, lines 27-38, col. 1, lines 40-45). Moreover, LeTemps et al. teach that the diameter of the nozzles is about 1.5 mm (col. 4, lines 25-27). Moreover, to impart a supersonic speed to the impinging gas the blowers would necessarily have to rotate at an exceedingly high speed. A rotational speed of 15000 rotations per minute would have been prima facie obvious given the teaching of using supersonic speeds.

It would have been prima facie obvious at the time the invention was made to combine LeTemps et al.'s teachings with McMaster's method of tempering glass sheets because doing so would more efficiently temper the glass sheets for a variety of glass thicknesses as taught by LeTemps et al. (col. 2, lines 20-25; col. 3 lines 19-26). This would result in high productivity of the process.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Colaianni whose telephone number is 703-305-5493. The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin, can be reached on (703) 308-1164. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7115.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

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February 13, 2003

A handwritten signature in black ink, appearing to read "Michael Colaianni". The signature is fluid and cursive, with a horizontal line extending from the end.

**MICHAEL COLAIANNI
PRIMARY EXAMINER**